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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/428,982	10/28/1999	DAVID C. ORLOWSKI	P3091	5377
33512	7590	04/11/2007	EXAMINER	
LAW OFFICE OF JAY R. HAMILTON, PLC. 331 W. 3RD ST. NEW VENTURES CENTER SUITE 120 DAVENPORT, IA 52801			PATEL, VISHAL A	
			ART UNIT	PAPER NUMBER
			3673	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE		DELIVERY MODE	
3 MONTHS	04/11/2007		PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/428,982	ORLOWSKI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Vishal Patel	3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 20 March 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 35,36,41-45,47,48 and 50-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 35,36,41-45,47,48 and 50-57 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____.                                     |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____.   | 6) <input type="checkbox"/> Other: _____.                         |

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/20/07 has been entered.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 35-36 and 41-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Orlowski (US. 5,221,095).

Orlowski discloses a seal fixed between a housing and a rotating shaft comprising: a stator (stator 20) fixed and sealingly mounted to the housing and concentrically about the shaft, the stator having opposite end faces (first end face having a projection 84 extend thereof and second end face that is opposite the first end face), an exterior peripheral surface (outer surface of 20) and an interior peripheral surface (inner surface of 20), a first annular groove (groove 30) formed in the stator that is sized to be as wide and deep as allowable by the material chosen for the stator (this is the case since the groove has a width and depth that is allowable by the material chosen for the stator) and extending axially between the end faces and positioned intermediate

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the exterior and interior peripheral surfaces, the first annular groove communicates directly with the shaft and is operable to collect fluid material separated from the shaft, at least one axial slot (slot 36) formed in the interior peripheral surface of the stator and the at least one axial slot communicates with the first annular groove in the stator for draining fluid material collected in the first annular groove into the housing (column 3, line 62-63).

Regarding claim 36: The seal having a rotor (22) sealingly mounted to the shaft for rotation therewith and having opposite end faces (first end face orthogonal to an axis of rotation of the shaft and adjacent to 42 and second end face opposite the first end face), an exterior peripheral surface (outer surface of 22) and an interior peripheral surface (inner surface of 22), a second annular groove (groove 96) formed in the end face of the stator and extending axially from the end face, the second annular groove located intermediate the stator exterior and interior peripheral surfaces (see figures), a rotor annular flange (flange that is received in the second groove) formed in the rotor, the rotor annular flange extending axially from the end face of the rotor and positioned intermediate to the rotor exterior and interior peripheral surfaces (the flange extends axially from the end face and intermediate the exterior and interior peripheral surfaces), the rotor annular flange is received within the second annular groove in the stator (see figures), an exterior annular channel (82) formed by engagement of the rotor and the stator for collecting contaminants entering the seal, an external drain (drain 100) extending from the exterior annular channel to the exterior of the housing to expel contaminants from the exterior annular channel.

Regarding claim 41: The stator and the rotor are unitized by a unitizing ring (60), the unitizing ring seats in a stator unitizing ring groove (groove 62) **when** the shaft is not rotating thereby sealing the interior of the seal from the exterior of the seal, the unitizing ring rotates with

the rotor and the unitizing ring expands during rotation so that the unitizing ring seats in a rotor unitizing ring groove (groove 64).

Regarding claim 42: The unitizing ring operates with no clearance between the rotor unitizing ring groove or the stator unitizing ring groove **when** the shaft rotates (intended use given little patentable weight but figures show this).

Regarding claim 43: The bottom of the axial slot is formed at an angle with respect to the shaft (see column 3, lines 62-64).

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orlowski.

Orlowski discloses the claimed invention except the clearance between the stator and the shaft is 0.05 inches for each inch of shaft diameter. Discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Without the showing of some unexpected result. Since applicant has not shown some unexpected result the inclusion of this limitation is considered to be a matter of choice in design. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the clearance between the stator and the shaft be 0.05 inches for each inch of shaft diameter, to provide mechanical expedience and as a matter of design choice.

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6. Claims 45, 47-48, 50-55 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orlowski as applied to claim 35 above, and further in view of Fedorovich et al (US. 5,431,414).

Orlowski discloses the invention substantially as claimed above but fails to disclose that the at least one axial slots is now plurality of axial slots, the circumferential periphery of the first annular groove in the stator bisects each individual slot of the plurality of the axial slots and adjacent axial slots are spaced so that a line connecting the center of one axial slot to the center of the adjacent axial slot does not intersect the interface between the stator and the shaft.

Fedorovich discloses a stator having plurality of first annular grooves (grooves 34 and 36), at least one axial slot (figure 1) and plurality of axial slots (figure 8). It would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the stator of Orlowski to have plurality axial slots and plurality of first annular grooves as taught Fedorovich to provide proper drainage of contaminants (column 3, line 65 to column 4, line 8 of Fedorovich) and to have plurality of slots instead of a single axial slot is to provide easy installation (column 6, lines 15-19 of Fedorovich).

7. Claim 56 rejected under 35 U.S.C. 103(a) as being unpatentable over Orlowski and Fedorovich.

Orlowski and Fedorovich disclose the claimed invention except the clearance between the stator and the shaft is 0.05 inches for each inch of shaft diameter. Discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Without the showing of some unexpected result. Since applicant has not shown some unexpected result the inclusion of this limitation is considered to

be a matter of choice in design. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the clearance between the stator and the shaft be 0.05 inches for each inch of shaft diameter, to provide mechanical expedience and as a matter of design choice.

***Response to Arguments***

8. Applicant's arguments filed 3/20/07 have been fully considered but they are not persuasive.

Applicants' affidavit and/or declaration filed on 3/20/07 is not persuasive because claims 35-43 are rejected under 102 (b).

Applicants' argument in paragraph 1 on page 4 of the Remarks/Arguments section against Orlowski is not persuasive because applicant has not only claimed stator. Furthermore as shown in drawings and stated in the specification the seal would work with a stator and rotor.

Applicants' argument in paragraph 2 on page 4 of Remarks/Arguments section against claim 35-43 is not persuasive because the optimum range and/or variable is not used.

Applicants' argument against Orlowski and Federovich based on the declaration filed on 3/20/07 does not hold Nexus because as stated in the rejection Federovich teaches both a single groove in figure 1 and plurality of grooves 8. Furthermore as stated in Federovich teaches in column 3, lines 60-62, an axial groove 38 is provided at the bottom of the seal device 10 to connect the grooves 34 and 36 to the interior of the housing 18 and at the same time teaches in column 6, lines 15-21, the stator member 102 also has additional axial grooves 108-120 connecting the annular grooves 34 and 36 to the interior of the housing 18, to provide easier installation than the stator member 12.

Applicants' argument against Orlowski and Federovich based on the declaration filed on 3/20/07 does not hold Nexus because as stated in the rejection Federovich teaches to have plurality of annular grooves 34 and 36 so that Oil that makes its way past the first groove 34 and past the second ridge 30 is thrown by centrifugal force into the second groove 36 and then drained by gravity into the axial groove 38 to be directed back into the housing.

Applicant' arguments based on the affidavit and/or declaration are not persuasive in view of the rejection above and the declaration does not hold nexus.

***Conclusion***

9. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is 571-272-7060. The examiner can normally be reached on 6:30am to 8:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia L. Engle can be reached on 571-272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP  
April 6, 2007



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